

Diffuse Mesonephric Hyperplasia of Cervix Mimicking Minimal Deviation Adenocarcinoma - A Case Report

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Abstract: The vestigial remnants of the mesonephric ducts are found in about 1-22% of adult cervixes^{1,2}. Mesonephric hyperplasia of cervix is a benign condition that is of pathological significance as it can be confused with and misdiagnosed as minimal deviation adenocarcinoma of the endocervix or as carcinoma in-situ. We report a case of diffuse mesonephric hyperplasia of cervix mimicking minimal deviation adenocarcinoma of endocervix.

Keywords: Diffuse mesonephric hyperplasia, minimal deviation adenocarcinoma , mesonephric hyperplasia of cervix.

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I. Introduction:

Mesonephric remnants are most commonly present in the lateral wall of cervix and may extend upto myometrium¹. They consist of small tubules and cysts. The tubules are usually arranged in small clusters and have orderly distribution of ampullary portion of fetal mesonephric duct. Mesonephric hyperplasia is classified into two histological types -lobular hyperplasia and diffuse hyperplasia.

Lobular type occurs at younger age and microscopically show more clustered mesonephric tubules with or without a centrally placed duct. Diffuse type is a less common type and have non-clustered diffuse pattern of arrangement of mesonephric tubules.

II. Case Report:

A 41 year old female diagnosed as fibroid uterus underwent total abdominal hysterectomy. Grossly the resected specimen showed intramural fibroid with normal appearing ectocervix and endocervix.(fig 1). Microscopically, the cervix showed diffuse arrangement of benign glands and tubules in the stroma. There was no cytological atypia or mitosis . Some of the tubules showed intraluminal eosinophilic secretions (fig IIa,IIb,IIc). With the above findings, a provisional diagnosis of diffuse mesonephric hyperplasia was given and to differentiate it from minimal deviation adenocarcinoma immunostaining for ki 67 and carcinoembryonic antigen(CEA) was done. ki 67 was positive in less than 10% of glands (fig IIIa), and CEA was negative (fig IIIb).



Fig I: Gross appearance cut surface showing normal endometrial cavity and cervix.

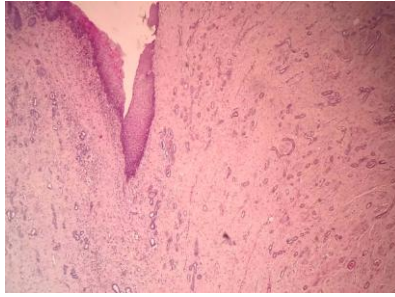


Fig IIa: (40X ,H&E) shows diffuse arrangement of tubules in cervical stroma.

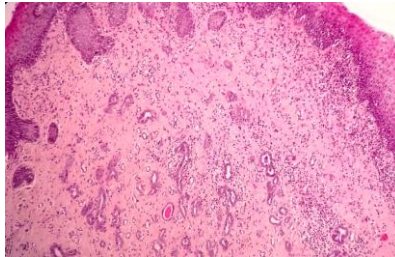


Fig IIb:(100X ,H&E) some tubules show eosinophilic secretions.

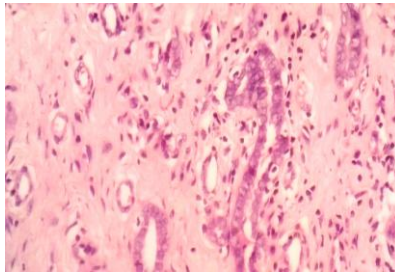


Fig IIc:(400X ,H&E) The tubules are lined by bland epithelial cells.

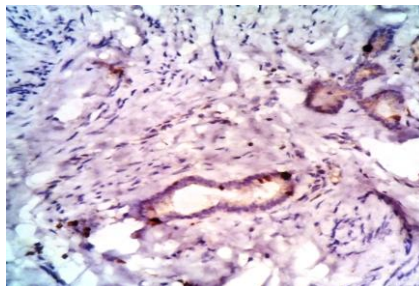


Fig IIIa- (400X) Ki 67 marker showing <10% positivity

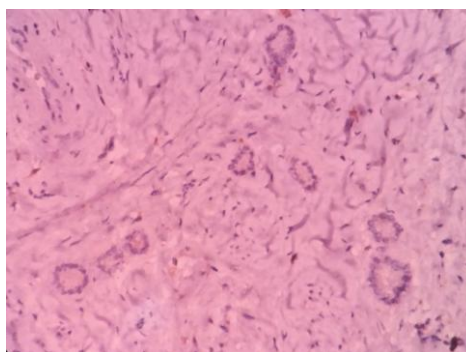


Fig IIIb – (400X) CEA negative.

III. Discussion:

Mesonephric hyperplasia is an uncommon lesion and is usually asymptomatic and found incidentally in cervical biopsy or hysterectomy specimen. Mesonephric remnants undergo hyperplasia resulting in a florid, tubuloglandular proliferation with transmural involvement. Microscopically the tubules are lined by non-ciliated, low columnar or cuboidal epithelium. The lining epithelial cells do not contain glycogen or mucin which differentiates it from endocervical epithelium. However the lumen contains pink, homogenous PAS positive secretions. The differential diagnosis of mesonephric hyperplasia includes mesonephric carcinoma, endocervical adenocarcinoma and clear cell carcinoma.

Mesonephric adenocarcinomas are very rare and arise from mesonephric duct remnants. These tumours have a very aggressive course. Mesonephric hyperplasia is differentiated from adenocarcinoma by lack of complex glandular pattern, mitosis, intracellular mucin, perineural or vascular invasion and periglandular stromal edema.

Immunohistochemistry aids in differentiating diffuse hyperplasia from minimal deviation adenocarcinoma. CD 10 shows luminal positivity in mesonephric origin^{3,6}. P 53 is negative in diffuse mesonephric hyperplasia of cervix. CEA is positive in adenocarcinoma of endocervix and helps in differentiating mesonephric hyperplasia from endocervical adenocarcinoma.

Mesonephric hyperplasia show low Ki 67 staining.

Recently, PAX 2 marker is found to be positive in mesonephric hyperplasia⁵.

IV. Conclusion:

We have reported a case of Diffuse mesonephric hyperplasia of cervix. As a pathologist we must be aware of this incidental finding as this is a benign condition and should not be confused and misdiagnosed as well differentiated endocervical adenocarcinoma.

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